

REMARKS/ARGUMENTS

Within the final Office Action, claims 1-5, 8-10, and 23-25 are rejected under 35 U.S.C. § 102(e), and claims 6, 7, and 26-32 are rejected under 35 U.S.C. § 103(a). By way of the above amendments, claims 1, 27, and 32 have been amended. Claims 11-22 were previously withdrawn. Accordingly, claims 1-10 and 23-32 are now pending.

The present invention

The present invention is directed to routing data over networks by selecting routes containing Service Provider Access Links (SPALs). Performance scores are determined for different routes and routes with superior performance scores are selected for routing data. In one embodiment of the invention, scores are dependent on an application, such as voice, video, and HTTP Web traffic. Specification at page 8, lines 1-7. In other words, one type of application can be prioritized over others. *Id.* at page 7, lines 2-5. Scores can also be determined for each application (*id.* at page 12, lines 15-18; and page 14, line 21, to page 15, line 18) from among all the applications. Other embodiments use a queue to store update requests, for transmitting to routing components. The rank of an update request in the queue depends on a computed improvement of a performance score over a previous performance score. *Id.* at page 20, lines 4-6, and page 27, lines 4-10. Thus, an update request is added to the queue not just because its performance score is merely larger than another, as shown by a simple comparison with the previous performance score, but because there is a substantial improvement, as determined by computing the improvement. Among other things, this reduces flapping between routes. In still other embodiments, a prefix is actually a group of prefixes. A performance score from the plurality of performance scores is determined by unpacking the group into component prefixes and generating performance scores corresponding to the component prefixes. *Id.* at page 11, lines 13-16.

Rejections under 35 U.S.C. § 102(e)

Within the final Office Action, claims 1-5, 8-10, 23-25 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,981,055 to Ahuja et al. The Applicants respectfully traverse these rejections.

Ahuja has been characterized in detail in previous responses. In short, Ahuja discloses a

system for and method of routing traffic using a performance monitoring and inference component 102, a routing optimization component 104, and a BGP bridge component 106. (Figure 2, Ahuja) Ahuja discloses that the type of traffic can be used as input to the routing optimization component 104 (Ahuja, col. 5, lines 22-25). Ahuja does not disclose generating application-specific performance scores; Ahuja does not disclose ranking update requests in a queue based on computed improvements of performance scores; and Ahuja does not disclose unpacking a group of component prefixes into component prefixes and generating performance scores corresponding to the component prefixes.

Claim 1 is directed to a method of routing a data flow traversing one or more routers in an internetwork. The one or more routers are coupled to a plurality of service provider access links (SPALs). The method recites, in part, determining a prefix for the data flow, wherein the prefix corresponds to an application selectable from a plurality of applications, and calculating a plurality of application-specific performance scores for the plurality of SPALs. As explained above, Ahuja does not disclose calculating application-specific performance scores. For at least this reason, claim 1 is allowable over Ahuja.

Claims 2-5, 8-10, and 23-25 all depend from claim 1, and are thus all allowable as depending on an allowable base claim.

Rejections under 35 U.S.C. § 103(a)

Claims 6, 7, and 26

Within the final Office Action, claims 6, 7, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahuja in view of U.S. Patent No. 6,981,055 to Gossett Dalton, Jr., et al. The Applicants respectfully traverse these rejections.

Gossett Dalton, Jr., is directed to “a centralized routing engine that is able to assist gateways in making routing decisions for calls being placed in an IP network environment.” (Gossett Dalton, Jr., Abstract) The calls include voice, fax, and video. *Id.* A source gateway operator is able to set preferences for routing calls. *Id.* The source gateway operator does not, however, determine a prefix for a data flow, where each prefix corresponds to an application selectable from a plurality of applications, for applications such as HTTP, voice, and video. Like Ahuja, Gossett Dalton, Jr., also does not disclose calculating application-specific performance scores.

As explained above, claim 1 recites calculating application-specific performance scores for selected applications. Neither Ahuja nor Gossett Dalton, Jr., discloses this element. Accordingly, claim 1 is allowable over Ahuja, Gossett Dalton, Jr., and their combination. Because claims 6, 7, and 26 depend from claim 1, they too are allowable as depending on an allowable base claim.

Claims 27-32

Within the final Office Action, claims 27-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahuja in view of U.S. Patent No. 6,963,575 to Sistanizadeh et al. The Applicants respectfully traverses these rejections.

Sistanizadeh is directed to regional and wide-area networks. The networks include a backbone network and a plurality of access networks. Sistanizadeh does not disclose a queue containing update requests, where a rank of the update request in the queue is dependent on a computed improvement of a superior performance score over a previous performance score for a prefix. Sistanizadeh does not disclose determining prefixes corresponding to applications and calculating application-specific performance scores. Finally, Sistanizadeh does not disclose unpacking a group of prefixes into component prefixes and generating performance scores corresponding to each of the component prefixes.

Claim 27 is directed to a method of routing from a source node to a group of destination nodes having a common prefix. Claim 27 recites, in part, implementing a route update request according to a priority queue. The route update request corresponds to a superior performance score, the priority queue prioritizes received route update requests according to urgency and implements the route update request according to a frequency of a previously implemented route update request, and a rank of the update request in the queue is dependent on a computed improvement of the superior performance score over a previous performance score for the prefix. Neither Ahuja nor Sistanizadeh, either alone or in combination, teaches a queue in which a rank of an update request in the queue is dependent on a computed improvement of a superior performance score over a previous performance score. For at least this reason, claim 27 is allowable over Ahuja, Sistanizadeh, and their combination. Because claims 28 and 29 depend on claim 27, they too are allowable as depending on an allowable base claim.

Claims 30 and 31 both depend on claim 1. As explained above, claim 1 is allowable over Ahuja. Furthermore, because Sistanizadeh also does not disclose calculating application-specific performance scores, claim 1 is also allowable over Sistanizadeh. Accordingly, claim 1 is

allowable over Ahuja, Sistanizadeh, and their combination. Because claim 30 and 31 depend on claim 1, they too are allowable as depending on an allowable base claim.

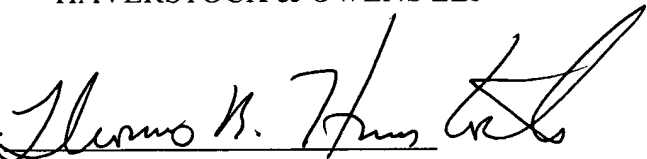
Claim 32 is directed to a method of routing from a source node to a group of destination nodes having a common prefix. Claim 32 recites, in part, generating a plurality of performance scores for a plurality of routes from the source node to the group of destination nodes. Each performance score corresponds to an access link from one or more access links. A performance score from the plurality of performance scores is determined by unpacking the group into component prefixes and generating performance scores for each of the component prefixes. As explained above, neither Ahuja, nor Sistanizadeh, nor their combination discloses unpacking a group into component prefixes and generating performance scores for each of the component prefixes. For at least this reason, claim 32 is allowable over Ahuja, Sistanizadeh, and their combination.

CONCLUSION

For the reasons given above, the Applicants respectfully submit that claims 1-10 and 23-32 are in condition for allowance, and allowance at an early date would be appreciated. If the Examiner has any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 so that any outstanding issues can be quickly and efficiently resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 11-6-06

By: 

Thomas B. Haverstock

Reg. No.: 32,571

Attorneys for Applicants

CERTIFICATE OF MAILING (37 CFR § 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

HAVERSTOCK & OWENS LLP

Date: 11-6-06